

INDUSTRIALISATION, TECHNOLOGICAL
CHOICES AND URBAN LABOUR MARKETS

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Historically, the process of industrialisation has inevitably been accompanied by general increase in the ratio of urban to total population. The economic logic for this trend has been the existence of a concentrated market and infrastructures initially, and agglomeration economies subsequently. Economic development and industrialisation have meant a shift in favour of manufacturing sector as a source of income and employment, and industries have found it advantageous to get located in the urban centres, and therefore industrialisation and urbanisation have gone together hand in hand. The mutual support the two have received from each other leads not only to a higher urban-rural population ratio; but also the emergence of large industrial cities and agglomerations.

On the other hand, industrialisation also means a change in the technical processes of production. It entails not merely a larger volume and proportion of industrial output and employment, but a structural change in the product structure and methods of production. Larger volume of production necessitates enhancement of speed and induces changes in input structures. The totality of change in structure of output, speed of production and the input structure and organisation is what can be regarded as the technological change. In concrete forms it entails, higher degree of mechanisation and automation, greater degree of specialisation and dominance of single process operations, and more complex organisational and management structures.

These developments bring with them far reaching changes in the labour market. The mode of production becomes increasingly capitalistic thereby leading to the emergence of continuous swelling of the ranks of wage earners of the proletarian variety. Labour becomes an item of competitive

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sale and purchase and a market for labour emerges. Since most of the new demand for labour is concentrated in urban areas and most of the proletarian variety of labour is also to be found or gets attracted to these areas, geographically, the locale of the operation of a labour market is mainly confined to the urban areas. But due to the increasing complexity of the industrial structure and technology labour increasingly ceases to be an undifferentiated mass of homogeneous units. The skills embodied in different labour units became more and more specific and their mutual substitutability disappears. We thus have segmented occupational labour markets which cut across industries if the occupations are not industry-specific, otherwise they are coterminous with the industrial markets.

The processes of industrialisation, urbanisation and emergence and stratification of labour markets described above have their inevitable implications for income distribution, social justice and social structure, particularly within the framework of a capitalist society. But, by and large, these processes are seen as natural corollaries of development of an economy, capable of sustaining a reasonably high rate of growth by continuously generating adequate surpluses, leading to a general increase in the levels of productivity and incomes, and a progressive increase in the skills and earnings of wage earners. If carried on on a widespread, balanced and uninterrupted basis, the process has generally meant an increase in welfare levels, organised and integrated production structure and markets, including labour markets and a relative reduction in disparities in earnings of workers, though skill-based wage differentials would persist.

In the intermediate stages, however, the industrial sector, even within a single urban area, is likely to be characterised by dualistic, and even pluralistic structures, in practically all its aspects; viz, production organisations, technology, labour markets, skill levels, wages and earnings. There is to be found a side by side coexistence of large as well as tiny production organisations, further stratified into multinational organisations and local large houses and undertakings among the former, and small scale organisations and single worker establishments, among the latter. The former by and large employ a high level, mostly imported technology, while the latter use mostly traditional and primitive techniques. Accordingly, there is found a coexistence of highly formalised structures, on the one hand, and most informal and unstructured production units on the other. By and large, the labour markets for

these segments are also isolated from each other due not merely to the reasons of technology and skills, but also on account of differences in hiring standards and practices. Consequently, levels of earnings differ between the two segments to an extent which defies explanation in the traditional competitive framework of variables.

The schism and lack of integration and cohesion between different segments of an urban economy are evident much more sharply in the case of India where the industrialisation process is not only at an intermediate stage and slow, but also the vigour with which industrialisation is pursued has been fluctuating and wavering. Industrialisation, though considered essential, has not always been looked as the strategy for growth and development. Further, the pattern of industrialisation envisaged as a matter of policy, holds back the natural process of scale enhancement, modernisation of techniques, integration and organisation of labour market and rationalisation of working conditions and wages of workers. For small scale, tiny and informal units using primitive and inefficient techniques are seen not as a characteristic of transitory phase, nor as only necessary to feed the modern process of industrialisation, but as permanent and important features of the future industrial pattern. As a result, the economic structure of even the relatively advanced industrial centres such as Bombay, Calcutta and Ahmedabad, have also the features of an ill-knit, unintegrated and sharply segmented system of production and labour marketing.

In its generic sense, industrialisation would imply scale enhancement, modernisation of skills and technology and greater integration in the labour market. The role that the tiny and small units, and traditional and primitive techniques play would gradually decline. Even if smaller organisations continue to exist significantly, they would be technologically integrated with the large scale sector. Such a process, however, does not seem to have set in in the Indian case. The tiny and informal sector is not only still very important in terms of the number of people engaged in it, but seems to be increasing over the period. Rough estimates put the contribution of this sector in employment in major urban agglomerations in India between 35 to 65 per cent. Further, it is found in a few studies attempted in this field so far, that the technological levels of this sector are far lower than those obtaining in the large sector, technological linkages and integration between the two sectors are extremely poor; the source of labour supply, conditions of work and consequently the wage levels in the informal sector units are significantly lower

than in the organised sector. It is also observed that the degree of exploitation of labour is, many a time, inversely related with the size and technology of units, mainly on account of the fact that it is only in the large scale sector that organised unionism exists and application of most of the protective legislation is also confined to this sector. The labour market characterised by abundance of fresh unskilled, entrants who are mostly absorbed by the tiny and informal sector and a relative shortage of the experienced and skilled workers in demand in the organised sector, tends to further accentuate the differences in the lot of workers between the two sectors. The differentiation based on specificity of skills seems to be low; a high degree of inter-industrial and inter-occupational mobility observed in the studies of urban labour markets implies substitutability among labour units. This may be a reflection of low and slow pace of industrialisation and technological advancement. It may, however, be noted that such substitutability is confined to units within each of the two segments of the urban economy. A higher degree of inter-industry and inter-occupation substitutability is revealed within either the organised or the informal sector: mobility between sectors, even in the same occupation is found to be insignificantly low.

The dualistic economic structure and the sectoral compartmentalisation of labour markets are likely to feature as continuing and even increasingly important characteristics of the urban economic activity in India, particularly because of the pattern of industrialisation adopted as a part of the official economic policy. Of late, the idea of modern industrialisation implying large scale production and introduction of modern technology, has met with declining favour as a strategy of development from the ruling elite. There also seems to be a resistance even to the idea of modernisation of small scale and tiny sector so as to make them more efficient, generating higher incomes and surpluses for expansion. For, it is presumed that such steps would lead to a reduction in the employment potential, which is the main argument advanced for preservation and promotion of these units.

The idea that a growth strategy based on tiny and small sector units using traditional techniques, rather than modern industrialisation characterised by scale enhancement and increasing labour productivity, seems to have found favour not only with policy makers in India, but also has a

strong support from a sizeable group of Western academics and international organisations. The apparent logic favouring the so-called 'informal sector strategy' is drawn from the considerations of employment and income distribution. It is argued that the large scale, modernised industrialisation involves use of techniques with low employment potential, and even a rapid growth of industries on this basis would be able to provide employment only to a small proportion of the job seekers. Further, the growth based on large units tends to benefit only a few in terms of the share in increased incomes, thus making the distribution of income and economic power more uneven. The informal sector on the other hand, uses techniques which can employ more hands per unit of capital, and if greater part of the growth is effected through small units, then there is likely to be a diffusion of economic power and a reduction in income inequality. Therefore, the growth strategy, it is argued, should be based on the preservation, encouragement and promotion of units in the small and informal sector. In any case, this sector happens to be predominant in the developing countries like India, and does not seem to have diminished in importance in spite of attempts at industrialisation on a large scale basis, the argument runs, why not use it as an asset of permanent value rather than treat as a liability to be dispensed with as soon as possible? The argument is made not merely limited to the extent of interdependence between the formal large scale sector and the informal sector, but pleads for the greater reliance on the latter for enhancement in incomes and employment, independent of and in preference to the former. It is also not confined to the non-urban sector where the production organisations are in any case mostly of 'informal' categories but is made equally forcefully for the economies of the urban areas where there is a natural tendency on the part of the establishments to be more formalised and large sized. The logic runs quite in line with another facet of the advocated strategy, i.e. the explicit bias against urbanisation.

It is highly inconceivable that the Indian economy in its developed stage will be characterised by millions of only tiny, small and independent units of production operating primarily on manual basis. A developed stage of the economy, when achieved, will have achieved primarily by enhancement of scales of production, use of modern technology and proper utilisation of the linkages among various

sectors and processes of production. Therefore formalised, relatively large and technologically interlinked units of production will have a very important role to play, though existence of 'informal sector' and its role cannot be ruled out. The industrial policy being biased against size and modernisation is likely to have its adverse effect on growth of output and also of employment, accentuate the technological dualism, make the labour market more sharply segmented and socio-economic differences between the workers in the large and the small sector sharper. These prognoses are borne out by the past trends and findings of studies on urban economic structures and labour markets conducted in some large industrial centres.

First, in the enthusiasm for advocating the informal sector and small units for creation of employment two basic things are ignored: one, the growth of employment cannot be sustained merely by concentrating on sectors and techniques which currently employ relatively more hands per unit of capital. Capital-labour ratio is a static criterion for assigning priority; and unless the production results in the generation of a reasonable amount of surplus for expansion, employment growth would inevitably decline. In most of the units in the informal sector, it is found that the surplus tends to be zero once the imputed wages for the self-employed and family labour are included in the costs. In many cases, workers are absorbed rather than productively employed in this sector as the earnings are lower than even the statutorily fixed minimum wages. Two, expansion in productive employment will ultimately depend on the rate of growth of output, although in extremely short period it may be possible to engage a larger number of hands by resorting to predominantly manual techniques with low growth potential. An emphasis on the informal sector is likely to slow down the rate of growth of output on a sustained basis and, therefore, it is doubtful if progressively higher levels of employment could be generated on the basis of the advocated strategy. It may be observed that even in the past, the major part of the increase in the industrial employment has been contributed by the large scale sector, even though the small scale sector continued to be predominant in the industrial structure of the country and even of large urban industrial centres. Slow growth of employment is accounted for not so much by the increasing capital-labour ratio in the organised sector as by the slack in the rate of industrial growth in general.

Within the small scale sector in the urban economies, however, there are found to be two clearly distinguishable segments so far as their technology, growth and labour market integration with the large sector are concerned. One segment

consists of units producing final consumer goods, generally, in competition with the large sector. In these units the technology is mostly manual, employment is substantial in relation to the capital as well as output, but productivity and earning levels are palpably low. Due to the low potential for generating surplus, this segment has not been able to grow fast. The workers in these units do not have a significant chance of moving into better paid jobs in the organised sector due to their skill and technological handicap and also to hiring practices and norms of the organised sector. In effect, there is hardly any integration and linkage between the large modernised units and the small ones in this sector of production.

On the other hand, there are units in the informal sector which are vertically linked with the units in the large scale sector. Most of these units are engaged in the production of accessories, intermediate products, spares and parts used by the large scale sector in the manufacturing of final products. In our studies in Bombay and Ahmedabad, we found that these units have grown much faster than the units which are horizontally placed in relation to the large sector. Their technology is neither as automated and mechanised as in the organised sector, nor as primitive and dominantly manual as in the other segment of the small sector; but it is linked with the modern technology used by large units and has to be changed in line with the technological changes taking place in them. It is this segment of the small sector which has contributed the major part of the increase in employment during the last ten years in the urban centres studied. There has also been found some movement of workers between the large and small establishments in this sector indicating that labour markets of the two sectors are not completely insulated from each other.

It is generally recognised that earnings and working conditions of workers are poor in the small establishment sector as compared to the large scale sector in an urban economy. This disadvantage of the workers in the small establishments is not likely to disappear because, the small units show significantly lower labour productivity than the large units, the technology of the small units is less skill intensive, the new entrants into the labour markets and rejects from the large scale sector continue swelling the supply of labour in the small units in the informal sector and the organisability of workers of these units into unions is rather low. It has sometimes been argued, in favour of the continuation of this sector in an urban economy, that it serves the purpose of 'waiting space' for the workers who

ultimately aspire for and succeed in getting higher paid and more secure jobs in the large scale units. It does not, therefore, matter if they earn low in their initial employment in the informal sector, as it could be treated as the 'apprentice' or 'training' period and makes workers better equipped and eligible for the aspired jobs. The actual situation, however, does not throw up any evidence that the work in informal sector and small units has such a utility for the worker. It was found that no more than one per cent of the workers in the organised factory sector in Bombay, ever worked in the informal sector and, most of the workers in the informal sector have been working there for periods between ten and fifteen years, which is too long for "apprenticeship"! Therefore, the idea that informal sector is a 'vestibule' for the workers to pass through to reach the higher compartments seem unfounded in the urban labour markets in India.

In effect, the technological dualism, pursued as a matter of policy, has given further support to the existing differentiation and segmentation in the urban economic structures and labour markets. If the trend continues, there are social implications following from it which need to be taken note of. It has been found that to a large extent, the workers in the two sectors also come from different socio-economic streams. The informal sector workers are mostly migrants from agricultural labour and other resourceless classes, did not get an opportunity to have any worthwhile education, over 50 per cent of them are illiterate, other members of their families mostly work in low paid casual jobs and they live in the city mostly without their families and only a few of them have opportunities to send their children to schools. Most workers in the organised sector, on the other hand, belong to families with relatively better economic status, with some land or other resources, a dominant majority is literate, the average schooling being about 7 years, are living in the city with their families and generally send their children to schools. It looks as though the two sectors would continue to draw their workers from these two different streams and the workers in the informal sector are not only themselves condemned to a situation of job insecurity, low earnings and poor working conditions, but their children may also have no better lot, so long as the large scale sector does not provide opportunities for them to get sectorally promoted.

For a better integration of the urban economic structure, technologies and labour markets so as to reduce the cleavage between large and small units and provide opportunities to the workers in small sector to better their economic status, it is

necessary that the growth of the large scale sector is accelerated; and the small scale manufacturing activity in the urban areas is encouraged mainly in sectors which are technologically linked with the large scale activity. Further, the policy of promotion of small units by offering incentives and subsidies should be based not merely on capital size or even on the direct employment generated per unit of capital, but also on the linkage potential and indirect employment effects of a small unit. This would avoid the discouragement of technological innovations leading to greater efficiency and growth potential, maximize overall employment generation and lead to better integration of urban labour markets thereby checking perpetuation of socio-economic disparities within an urban economy.

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